

- 4 times as long as preceding section. Food-plant unknown.
 Id.....*auriceps* Melander.
15. Small species, 1.5–2 mm. in length; general colour shining black, interfrontalia black; orbits lemon yellow on upper half; apical half of femora yellow; tibiæ brownish yellow. Food-plant unknown. Mass., D. C., Ind., Ill.....*marginata* Loew.
- Larger species, 2.5–3.5 mm. in length; general colour opaque black, gray pollinose; interfrontalia and orbits largely or entirely yellow; femora narrowly yellow at apices. Food-plant unknown. Mont., Id., Wash., Col.,
 Maine.....(*coloradensis* Malloch) *genualis* Melander.

OUR BIRCH *SYMDOBIUS* DISTINCT FROM THE
 EUROPEAN. (APHIDIDÆ—HOM.)

BY A. C. BAKER, WASHINGTON, D.C.

In 1909 specimens of the oviparous female of a species of *Symydobius* were collected from birch by the writer at Puslinch Lake near Guelph, Ont. These were determined as *oblongus* Heyden. Dr. Edith M. Patch* found the same species in Maine in 1908 and gave an excellent description and figures of it under the name *oblongus*. Specimens collected in 1903 on *Betula alba* in Minneapolis, Minn., presumably by Mr. Theo. Pergande, are now in the collection of the Bureau of Entomology. A study of the different specimens available has led the writer to conclude that our American form is quite a distinct species.

Specimens of *S. oblongus* taken in Petrograd by Chlodkovsky, in Warsaw by Mordwilko, and in Brussels by Schouteden, all agree in characters, and these are uniformly different from our American species.

In the alate form the most striking difference is met with in the relative lengths of the antennal segments. This will be seen from the following measurements of *oblongus* as compared with the description of the American species given herewith.

S. oblongus III, 1.12 mm.; IV, 0.72 mm.; V, 0.528 mm.; VI, (0.208 mm.+0.112 mm.).

*Me. Agr. Exp. Sta., Bull. 181.
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It will be seen by these measurements that the unguis of segment VI is much shorter than the base and only about one-tenth as long as segment III. In the American species on the other hand the base and the unguis of segment VI are almost equal, and the unguis is about one-fourth as long as segment III. In the American species also the anal plate is somewhat indented, whereas in the European species this is not noticed.

The apterous forms show the same differences between the two species in regard to segment VI of the antennæ, the European species measuring III, 1.168 mm.; IV, 0.72 mm.; V, 0.512 mm.; VI, (0.144 mm.+0.112 mm.). Another difference between the two species in this form is that in the American species segment III is armed with a row of sensoria which cover the entire segment, whereas in *oblongus* only the basal half of the segment is covered. There is this same difference also in the alate forms, but a little more than half of segment III is covered in *oblongus*.

***Symydobius americanus*, n. sp.**

Alate viviparous female.—Antennal segments as follows: III, 0.96 mm.; IV, 0.64 mm.; V, 0.528 mm.; VI, (0.224 mm.+0.24 mm.). Segment III with a row of about 25 rather small protruding sensoria arranged in a more or less even row over the entire segment. Hind tibiæ 1.28 mm., hind tarsus 0.192 mm.; hind wing about 3 mm. long, cauda rounded, anal plate slightly notched.

Colour brown, abdomen with dark transverse bands, cornicles pale, wing veins heavily bordered with dark brown; antennæ with segments I to III and the distal extremities of IV, V and VI dark brown, the remainder yellowish white.

Apterous viviparous female.—Antennæ as follows: III, 1.15 mm.; IV, 0.72 mm.; V, 0.592 mm.; VI, (0.24 mm.+0.24 mm.). Segment III, armed with about 20 circular sensoria in a somewhat even row along the segment. Hind tibiæ somewhat curved, about 2.88 mm. long; hind tarsus 0.224 mm. Cauda and anal plate similar to those of the alate form. Length from vertex to tip of cauda 2.88 mm.

Colour brown. Antennæ and cornicles similar to those of the alate form. Abdomen with transverse brown markings. Eyes red.

Oviparous female.—Antennæ as follows: III, 0.928 mm.; IV, 0.512 mm.; V, 0.416 mm.; VI, (0.208 mm.+0.24 mm.). Segment III armed with sensoria as in the apterous viviparous female. Hind tibiæ 1.44 mm. long; slightly swollen and armed with a very large number of rather small, indistinct sensoria; hind tarsus 0.224 mm.; caudal extremity somewhat drawn out into an ovipositor though not prominently so.

Colour as in the apterous viviparous form.

Described from specimens in balsam mounts.

Type in U. S. Nat. Museum.

The two species may be separated by means of the following characters:

- A. Unguis of segment VI considerably shorter than the base and about one-tenth as long as segment III; sensoria on segment III on basal half only..... *oblongus*.
- B. Unguis of segment III about equal to base and about one-fourth as long as segment III; sensoria on segment III in a row covering entire segment..... *americanus*.

HOW EMPHOR DRINKS.

BY CHARLES ROBERTSON, CARLINVILLE, ILLINOIS.

The fact that *Emphor bombiformis* rests upon the water when drinking, mentioned under the above title by Frederick Knab in Proc. Ent. Soc. Washington, Vol. XIII, p. 170, 1911, was observed in 1890 and was recorded in the Canadian Entomologist, Vol. XXII, p. 217. It is fairly certain that the bees were not drinking in the ordinary sense, but that they consisted exclusively of females which were getting water to soften the earth in which they were making excavations for their nests.